



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

March 6, 2016

Mr. Timothy R. Basilone, Vice President -- Environmental Affairs
Horsehead Corporation
e-copy: tbasilone@horsehead.net
4955 Steubenville Pike
Pittsburgh, PA 15205

**Re: State Operating Permit No. SOP-01039
Horsehead Corporation
Rockwood, Roane County, Tennessee**

Dear Mr. Basilone:

In accordance with the provisions of the Tennessee Water Quality Control Act, Tennessee Code Annotated (T.C.A.), Sections 69-3-101 through 69-3-120, the Division of Water Resources hereby issues the enclosed State Operating Permit. The continuance and/or reissuance of this Permit is contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that a petition for permit appeal may be filed, pursuant to T.C.A. Section 69-3-105, subsection (i), by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application. Additionally, for those permits for which the department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment. Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Water Resources Board within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel.

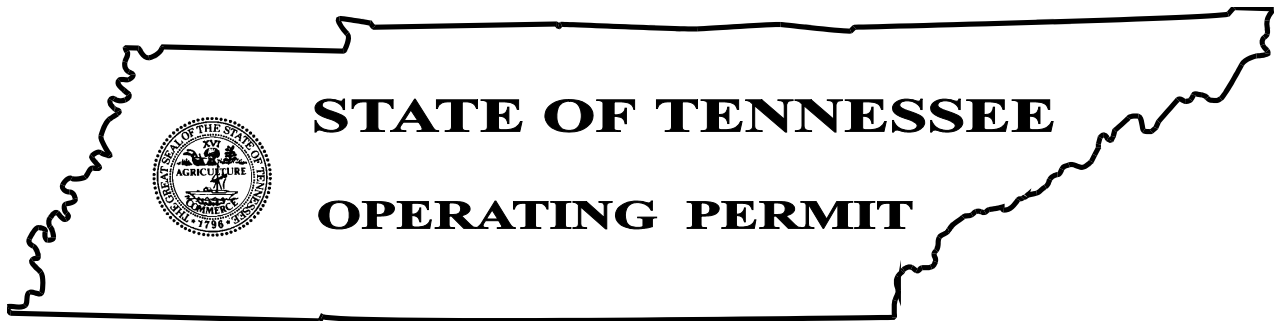
If you have questions, please contact the Knoxville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Mr. Jim McAdoo at (615) 532-0684 or by E-mail at Jim.McAdoo@tn.gov.

Sincerely,

Vojin Janjić
Manager, Water-based Systems

Enclosure

cc/ec: Water-based Systems File
Knoxville Environmental Field Office
Ms. Erica Livingston, Environmental Manager, Horsehead Corporation, elivingston@horsehead.net
Ms. Natalie R Harris, Env Field Office Mgr, TDEC Division of Water Resources, Natalie.Harris@tn.gov



No. SOP-01039

Issued By

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

In accordance with the provisions of Tennessee Code Annotated Section 69-3-108 and regulations promulgated pursuant thereto, permission is hereby granted to:

Horsehead Corporation

For the operation of: **industrial stormwater drainage to holding pond (called "Moon Spring Pond") with pond water recycle to manufacturing plant**

From facility located at: **199 Truck Route, Rockwood, Roane County, Tennessee**

Adjacent to waters named: **Moon Spring Pond (on-site) near Black Creek**

This permit shall become effective on: **May 1, 2016**

This permit shall expire on: **April 30, 2021**

Issuance date: **March 1, 2016**

A handwritten signature in blue ink, appearing to read "T. Calabrese", is written over a horizontal line.

For Tisha Calabrese Benton
Director

Horsehead Corporation in Rockwood, Roane County, Tennessee is hereby authorized to operate industrial stormwater drainage and holding pond system (called "Moon Spring Pond"). The pond water is recycled to the manufacturing plant. This authorization is in accordance with the application received on October 29, 2015 in the Nashville Central Office of the Tennessee Division of Water Resources. This authorization is consistent with approved plans, specifications and other data submitted to the Department in support of the above application, all of which are filed with and considered as a part of this permit, together with the following named conditions and requirements.

The division has reviewed the current annual report and determined that there is minimal potential to pollute from this activity. This permit will retain annual monitoring of all parameters from the previous permit. The monitoring of the three inlets to the pond has been eliminated.

This permit allows the operation of a holding pond at the above-described location. The operation should be such that there is no discharge of wastewater to any surface or subsurface stream, watercourse, or drainage ditch because of an overflow, spills, and/or because of the occurrence of any other condition, that singly or in combination with any of the aforementioned conditions, causes such discharge to any surface or subsurface stream, watercourse, or drainage ditch. In addition, said system must be operated in a manner preventing the creation of a public health hazard.

PART I

PERMIT CONDITIONS AND REQUIREMENTS

The system must be operated and maintained in a fashion which will insure that the system does not cause any violations of the conditions or requirements of this permit. The permit's monitoring requirements include the following provisions:

The permittee shall sample the holding pond annually for the following parameters.

Holding Pond Monitoring Requirements			
Pollutant Parameter	Maximum Concentration in mg/L except for pH	MEASUREMENT FREQUENCY	SAMPLE TYPE ^{1,3}
Flow (MGD)	Report (MGD)	annual	estimate ¹
pH ² (s.u.)	6.0 - 9.0	annual	grab ^{2,4}
COD	Report (mg/L)	annual	grab ⁴
Aluminum, Total	Report (mg/L)	annual	grab ⁴
Arsenic, Total	Report (mg/L)	annual	grab ⁴
Iron, Total	Report (mg/L)	annual	grab ⁴
Nickel, Dissolved	0.05	annual	grab ⁴
Lead, Dissolved	0.015	annual	grab ⁴
Mercury, Dissolved	0.002	annual	grab ⁴
Silver, Total	Report (mg/L)	annual	grab ⁴
Zinc, Total	Report (mg/L)	annual	grab ⁴
Cadmium, Dissolved	0.005	annual	grab ⁴
Chromium, Dissolved	0.1	annual	grab ⁴
Copper, Total	Report (mg/L)	annual	grab ⁴
Selenium, Total	Report (mg/L)	annual	grab ⁴

¹ Water in Moon Springs Pond will be sampled once per year. Samples will be taken from 2 feet above the bottom of the pond or from mid-depth where mid-depth is within 2 feet of the bottom.

² pH analyses shall be made within 15 minutes of sample collection.

³ Samples shall be representative of non-storm event conditions, that is, the sampling shall be at least 72 hours after a storm event with precipitation of 0.1 inches or greater.

⁴ Grab samples will be made of different areas in the pond. The pond surface area will be divided into 4 quarters and a grab sample shall be made of one of the quarters. A quarter of the pond will not be re-sampled until all the other quarters have been sampled.

The permittee shall evaluate the results obtained from sampling and monitoring following the required annual sampling events to determine whether the facility is below, meets, or exceeds the monitoring benchmarks as shown in the table above. The results will be reported to Knoxville Environmental Field Office on Discharge Monitoring Report (DMR) forms. If the results of annual storm water runoff monitoring demonstrate that the facility has exceeded the benchmark(s), the permittee must

inform the division's Knoxville Environmental Field Office in writing within 30 days from the time storm water monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time storm water monitoring results were received, the facility must review its storm water pollution prevention plan, make any modifications or additions to the plan which would assist in reducing effluent concentrations to less than the monitoring benchmarks for that facility, and submit to the division's local Environmental Field Office a brief summary of the proposed SWPPP modifications (including a timetable for implementation). The modification or additions to the SWPPP should be implemented as soon as practicable

The permittee must develop, document and maintain a storm water pollution prevention plan (SWPPP) pursuant to the requirements as set forth in the Tennessee Multi-Sector General Permit for Industrial Activities, Sector F, "Storm Water Discharges Associated With Industrial Activity From Primary Metals Facilities", Part 3, "Stormwater Pollution Prevention Plan Requirements", applicable to primary metals facilities. The plan shall be signed by either a principal executive officer of a corporation, the owner or proprietor of a sole proprietorship, or a partner or general partner of a partnership. The SWPPP developed and implemented shall contain, in addition to the requirements listed in the Tennessee Multi-Sector SWPPP guidelines for primary metals facilities. The SWPPP shall be available within 60 days after the effective date of this permit.

A freeboard of at least 2 feet must be maintained around the holding pond.

The freeboard must be measured and recorded every seven days. At the same time, the rainfall for the previous seven days must be recorded. A copy of these measurements shall be submitted to the Environmental Field Office - Knoxville within fifteen days of a request.

The discharge of wastewater in any way to surface or subsurface waters, the disposal of wastewater by any method other than to the lagoon holding pond constitutes a violation of this permit.

All records and monitoring required by this permit must be kept by Horsehead Corporation for review by the Division of Water Resources for a minimum of three years. A copy of these records must be sent to the Water Resources Environmental Field Office - Knoxville within fifteen days of the request.

Any sludge or other materials removed by any treatment works must receive disposal adequate to prevent their entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and the Tennessee Hazardous Waste Act, TCA 68-46-101 et seq.

Recognizing that rainfall exceeds evaporation in Tennessee, the permittee shall prepare and implement a written plan describing how rainfall and other surface runoff reaching the pond will be disposed of without discharge. This plan shall be retained on-site and made available for review upon request by the division.

This permit is subject, at any time, to review by the Tennessee Department of Environment and Conservation, Division of Water Resources.

Noncompliance with the no discharge provision of this permit due to excessive rainfall, equipment failure, etc., must be reported within 24 hours to the nearest Water Resources Environmental Field Office by telephone. A written submission must be provided within five days. These reports shall be filed with an appropriate Environmental Field Office.

The permittee may elect to treat the stormwater streams prior to them entering the holding pond using ECOTITE IRM (iron-riched material), a commercially available product produced on site. The permittee needs to advise and consult with the division before adding any treatment.

Failure to meet one or more of the preceding conditions and criteria shall constitute a violation of this permit.

Notwithstanding this permit, permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge or spill of waste water to any surface or subsurface waters. Additionally, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or disposal activities in a manner such that public or private health hazards or nuisances will not be created.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

The permittee is not authorized to operate after the expiration date of this permit. In order to receive authorization to operate beyond the expiration date, the permittee shall submit such information and forms as are required to the director no later than 180 days prior to the expiration date.

2. Right of Entry

The permittee shall allow the Director of the Division of Water Resources, or authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records; to review the record/log books of the permittee; and
- b. To inspect at reasonable times any collection, transport, treatment, and pollution management equipment; and
- c. To collect samples at reasonable times of any discharge of wastewater pollutants.

3. Availability of Reports

All reports and log books submitted in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources . All reports and data shall be kept for minimum of three years by the permittee.

4. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

6. Severability

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

7. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the director, then he shall promptly submit such facts or information.

B. CHANGES AFFECTING THE PERMIT

1. Permit Modification, Revocation, or Termination

a. This permit may be modified, revoked and reissued, or terminated for cause as described in Tennessee Code Annotated 69-3-108(f).

b. The permittee shall furnish to the director or his representative, within a reasonable time, any information which may be requested to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee shall also furnish to the director, upon request, copies of records required to be kept by this permit.

2. Change of Ownership

This permit may be transferred to another person by the permittee if:

a. The permittee notifies the director in writing of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and the new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c. The director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Change of Mailing Address

The permittee shall promptly provide to the director written notice of any change of mailing address, or contact information. In the absence of such notice the original address and telephone number(s) of the permittee will be assumed to be correct.

C. NONCOMPLIANCE

1. Effect of Noncompliance

Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance, which would cause a threat to public drinking supplies, or any other discharge, which could constitute a threat to human health or the environment, the required notice of noncompliance shall be provided to the appropriate Division Field Office within 24 hours from the time the permittee becomes aware of the circumstances. (The Field Office should be contacted for names and phone numbers of emergency response personnel.)

A written submission must be provided within five days of the time the permittee becomes aware of the circumstances unless this requirement is waived by the director on a case-by-case basis. The permittee shall provide the director with the following information:

- i. A description of the discharge and cause of noncompliance;
- ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- iii. The steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

This written notice shall not be considered as excusing or justifying the failure to comply with this permit.

b. Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph 2. a. above, the permittee shall report the noncompliance on an annual basis. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. LIABILITIES

1. Civil and Criminal Liability

The permittee is subject to civil and criminal liability for violation of this permit. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

PART III

OTHER REQUIREMENTS

A. ADDITION OF WASTE LOADS

The permittee shall not add waste loads from any sources without approval by the division.

B. PLACEMENT OF SIGNS

Within sixty (60) days of the effective date of this permit, the permittee shall place and maintain a sign at the holding lagoon pond. The sign should be clearly visible to the public. The minimum sign size should be two feet by two feet (2' x 2') with one inch letters. The sign should be made of durable material and has a white background with black letters.

The sign is to provide notice that the holding pond is regulated by the Tennessee Department of Environment and Conservation, Division of Water Resources. The following is given as an example of the minimal amount of information that must be included on the sign:

**INDUSTRIAL STORM WATER HOLDING POND
HORSEHEAD CORPORATION
(PERMITTEE'S PHONE NUMBER)
SOP PERMIT NO. SOP-01039
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 DWR ENVIRONMENTAL FIELD OFFICE**

ADDENDUM to RATIONALE

Jim McAdoo

Ms Erica Livingston of the Horsehead Corporation submitted comments dated January 18, 2016 on the draft permit. A summary of the comments and how the division responded follows.

Ms Livingston pointed out that the permittee operates a secondary zinc recycling facility (SIC 3341) and not a blast furnace (SIC 3312) and requested that reference to monitoring requirements Table F-1 of the Tennessee Multi-Sector General Permit (TMSP) be deleted from the final permit. In the same vein, the permittee advised that they will continue to conduct annually monitoring for all previously listed parameters to characterize the storm water in the holding pond and requested that all these parameters be retained. The division agreed and revised the permit accordingly.

Lastly, it was requested that the verbiage on the previous holding pond sign be retained. The division agreed.

RATIONALE

Horsehead Corporation
STATE OPERATION PERMIT NO. SOP - SOP-01039
Rockwood, Roane County, Tennessee

Permit Writer: Jim McAdoo

FACILITY CONTACT INFORMATION:

Mr. Timothy Basilone
Vice President -- Environmental Affairs
Phone: (724) 773-2223
tbasilone@horsehead.net
199 Truck Route
4955 Steubenville Pike
Pittsburgh PA 15205-

Facility location: 199 Truck Route, Rockwood Roane County

Name of the nearest stream: Moon Spring Pond (on-site) near Black Creek

Treatment system: industrial stormwater drainage to holding pond (called "Moon Spring Pond") with pond water recycle to manufacturing plant

Permit period: This permit will be issued for a five year period effective from the issuance date on the title page.